

## ABSTRACT

An electronic circuit for sensing an output of a sensor having at least one electrode pair and circuitry for obtaining and processing the sensor output. The electrode pair may be laid out such that one electrode is wrapped around the other electrode in a U-shaped fashion. The electronic circuitry may include, among other things, a line interface for interfacing with input/output lines, a rectifier in parallel with the line interface, a counter connected to the line interface and a data converter connected to the counter and the electrode pair. The data converter may be a current-to-frequency converter. In addition, the rectifier may derive power for the electronic circuit from communication pulses received on the input/output lines.